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DEFENSE INTELLIGENCE AGENCY

Soviet and Peoples Republic of China
Nuclear Weapons Employment
Policy and Strategy

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PEOPLES REPUBLIC OF CHINA

NUCLEAR WEAPONS EMPLOYMENT
POLICY AND STRATEGY

PART II



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II. DISCUSSION.- PEOPLES REPUBLIC OF CHINA

A. Antecedents

1. 1949-1960 -- The Formative Years

[REDACTED] a. Nuclear weapon employment policy and strategy

(1) Perception of the threat: Long range US nuclear attacks on mainland China followed by large scale conventional assault by land, naval, and air forces.

(U) (2) Responses and initiatives

(a) In 1949 when the Chinese communists came to power they possessed little more than a sizable land army. And, to quote Mao, that army possessed little more than "millet plus rifles." To the Chinese leaders, their victory proved the validity of Mao's teachings that man, not weapons, is the decisive factor in war, and that victory over a technologically superior enemy can be gained in a protracted war of attrition and annihilation. Despite an assertion by Mao as early as August 1946 that "the atom bomb is a paper tiger used by the US reactionaries to scare people," the Chinese appreciated the fact that their defense capabilities were limited. Hence, they had to look to the Soviet Union to underwrite their security. On 14 February 1950 China signed with the USSR a Treaty of Friendship, Alliance, and Mutual Assistance and a program of military aid began.

(b) There is no evidence that the Chinese communists participated in planning for the Korean

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(1949-1960 cont)

War nor, until the summer of 1950, made any preparations for participation. But, with the entry of United Nations forces into the conflict and their success against the North Korean forces and the approach to the Yalu, the Chinese reacted out of a real sense of fear. In entering the Korean war, the Chinese communists wrote two new facets of their strategic doctrine: they would fight beyond their own borders to insure the integrity of those borders; and they would fight to prevent the collapse of another Asian communist regime. China emerged from the Korean War with a more modern military force and with the perception that conventional conflicts need not escalate into a nuclear war. Further, in their eyes, the Korean War experience underscored the Maoist concepts of the power of mobilized and indoctrinated masses; the necessity of clearly understanding the political objectives of warfare; and the importance of man over machines as the decisive factor in war. China had also learned the need of an indigenous military-industrial capability but was burdened with a heavy debt for Soviet assistance provided. By saddling the Chinese with outlays as heavy as they could bear, the Soviets for a number of years rather dramatically hindered China from developing an independent military establishment.

(c) During the period 1953-54, the Chinese were assessing the impact of international events on

(1949-1960cont) [REDACTED]

their military strategy. The Soviet acquisition of atomic weapons increased China's security; but this was offset by the US development of thermonuclear weapons. At the same time, the strategic "massive retaliation" concepts of the Eisenhower administration contained, in Chinese eyes, alarming features. Additionally, while Soviet thermonuclear developments were gratifying, the Chinese began to question Soviet support on China's behalf at the risk of US thermonuclear response on Soviet territory. And, lastly, the United States' Asian containment policy represented by the creation of SEATO, posed further problems for the Chinese. These events showed Peking that, while political factors might remain supreme, China's foreign policies would be subject to major constraints so long as the Chinese lacked adequate means of their own for deterring nuclear threats.

(d) Peking reinforced its efforts to develop the base necessary to support an indigenous nuclear capability. But this led to the strategic debates of 1955-56: Should China acquire her own weapons or should reliance be placed on a Soviet nuclear umbrella. Professional military leaders argued in support of nuclear weapons and of new military technology, in general, at the expense of the slow development of the country's economic potential, as favored by some party leaders. The final policy decision rejected the

(1949-1960 cont) [REDACTED]

view of the military professionals: economic development would be pursued.

(e) In 1956 the Soviet party chief, Nikita Khrushchev, introduced a new equation. He argued that atom bombs were no respectors of class laws, that conflicts could escalate, and that one should not insist on violent revolution to the point of courting disaster. This contradicted the Maoist belief that atomic weapons were "paper tigers" and presented again the question of continuing Soviet strategic nuclear support. Meantime, however, the Soviets did provide substantial assistance to the Chinese nuclear program. In October 1957, the two countries signed an agreement on new technology for national defense.

(f) The weakness of the Chinese and the Soviet refusal to back them in any risky situation, was evident in the Quemoy crisis of August-September 1958. Events made it clear to the Chinese leaders that while the US might be willing to use nuclear weapons if pressed too hard, the Soviets were unwilling to take similar risks in protecting China. Here, again, was reason to question the validity of Chinese reliance on the Soviet nuclear shield.

(g) The decision of the Chinese to develop their own missile delivery systems must have been

(1949-1960 cont) [REDACTED]

made prior to 1958, possibly as early as 1956. Options available varied from that of stressing relatively short-range missiles based on the systems being received from the Soviets to developing an ICBM with which to reach the continental United States. The first of these options was accepted. Thus, China established the basis for creation of a regional nuclear strategy and capability.

(h) Sino-Soviet relations began to deteriorate as early as 1956. Subsequent events caused further schism and in 1959 apparently contributed in large degree to a renewed policy debate among the Peking leadership and the dismissal of the Minister of National Defense and four vice ministers. During that same year, the Soviets abrogated the 1957 national defense technology agreement. The final breach in Sino-Soviet military cooperation occurred in 1960 when the Soviets withdrew their military advisors and a large portion of arrangements for economic-military cooperation were phased out. China was on her own, having operated under a nuclear strategy of defense dependency but now finding the guardian gone.

[REDACTED] b. The evidence

(1) Force deployments

(a) Following the Korean War the Peoples Liberation Army was generally deployed to accomplish two objectives: defense against a US conventional attack on

[REDACTED]
(1949-1960 cont)

mainland China; and maintenance of internal security. Defense against a strategic nuclear attack was limited to subsonic interceptor aircraft and conventional antiaircraft artillery weapons deployed in a point defense pattern. The ground forces remained the dominant element of China's military structure, but all elements had undergone some modernization and had acquired three years experience in fighting a conventional war against a modern and well equipped enemy. These forces were constrained to the conduct of limited and unconventional warfare.

(b) Before 1960 direct Soviet military assistance had included the provision of advisors and a vast variety of equipment. Of the assistance provided, most significant to China's future strategic nuclear capability were an experimental nuclear reactor, facilities for processing uranium, a cyclotron, and some equipment for a gaseous diffusion plant. Related military equipment included two TU-16 jet medium bombers, 13 TU-4 propeller driven medium bombers, plans for a Golf class conventionally powered guided missile submarine; SS-1, SS-2 and SS-3 surface-to-surface missiles and launch equipment, technology for developing the SS-4 and a small number of SA-2 surface-to-air missiles. Additionally, the Soviets probably provided assistance in constructing the missile test range at Shuangchengtzu.

(1949-1960 cont) [REDACTED]

(2) Exercises and training. In the first year of its formal existence the Peoples Liberation Army (PLA) training was oriented toward a "military first" concept. Following the Korean War, efforts were initially directed to correcting deficiencies pointed up by that war. Subsequently, stress was placed on the political aspects of training while traditional military training was degraded. At the same time, the trend was away from Russian doctrine with emphasis being given to Chinese needs and conditions. Throughout this period, training by all services was exclusively concerned with the conventional and unconventional offense and defense character of warfare.

(3) Command control. No nuclear command and control system existed in China during this period.

(4) Research and developments.

(a) In 1951 Peking signed a secret agreement with Moscow through which China provided uranium ores in exchange for Soviet assistance in the nuclear field. There is some indication that by 1953 the Chinese, under the guise of peaceful uses of nuclear energy, had initiated research leading to the development of nuclear weapons.

(b) In mid-October 1957 the Chinese and Soviets signed an agreement on new technology for national

[REDACTED]
(1960-1969)

defense. The full scope of this agreement is not known, but from available evidence it included provision for additional Soviet nuclear assistance as well as the furnishing of some surface-to-surface and surface-to-air missiles. Pursuant to this agreement the Soviets provided the Chinese with assistance in building a major gaseous diffusion facility for production of enriched uranium. Some years later the Chinese accused Moscow of having torn this agreement up in 1959, and having "refused to supply a simple atomic bomb and technical data concerning its manufacture." Thus, the Chinese were forced to continue to play down the importance of advanced weapons while at the same time attempting gradually to build up an advanced weapons capability with only token Soviet help -- and to do this first in the face of national emphasis on domestic economic development and then later in the face of the chaos created by the Great Leap Forward. In May 1958, the Chinese announced that they intended to build their own missiles.

2. 1961-1969 -- China Goes It Alone -

a. Nuclear weapon employment and policy.

[REDACTED] (1) Perception of the threat: Long range nuclear attacks by the United States or the Soviet Union, or the alternative of large scale conventional assault, primarily by the Soviets.

[REDACTED] (2) Responses and Initiatives.

(a) Just when the Chinese leaders began

[REDACTED]
(1960-1969 cont)

to think about the concept of a strategic nuclear doctrine and strategy is not known. And, Chinese reticence, even up to the present time, with respect to their nuclear capability and intentions has not facilitated the evaluation of China's nuclear strategy and plans for developing a strategic nuclear force.

(b) Almost nothing has been written or voiced by Chinese leaders which could indicate the formulation of a definitive nuclear strategy. In fact, it is quite possible that Peking has not even today clearly defined its doctrine and strategy for waging nuclear war. Nevertheless, it certainly must have been apparent to the Chinese leaders from the start that they had almost no chance of achieving nuclear parity with the superpowers. Consequently, their cautious, pragmatic doctrine for development, deployment and employment of their strategic forces was forced on them rather than being adopted voluntarily. Certainly the development of a deterrent doctrine and capability must have appeared as the only feasible course of action at least for the near and mid-term periods. Should deterrence fail, the Chinese leaders perceived the need for an assured retaliatory capability. But, at the same time they were highly sensitive to the paucity of their defenses against a strategic attack. If China was to survive such an attack, measures were necessary to insure such survival. Hence, the defensive strategy of hardening, dispersal,

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(1960-1969 cont)

redundancy and civil defense measures was adopted.

(c) During the early years of this decade available evidence indicates that the formulation of a comprehensive Chinese strategy was characterized by major gaps and unresolved problems. Chinese thinking about nuclear war continued to be concerned with defense, and survival, although reference was made to use of tactical nuclear weapons. In essence, the doctrine took into consideration the following types of warfare;

1 Surprise strategic air attack with nuclear weapons against mainland China.

2 Invasion of the mainland by ground forces armed with conventional weapons.

3 Chemical/bacteriological warfare, both strategic and tactical.

4 Lower level conflicts, such as local wars in contiguous areas.

(d) At that time, the Chinese had little to propose as a defense against a strategic nuclear attack except improvement of air defenses and the dispersal, hardening and camouflage of military targets. Nevertheless, they postulated that a potential enemy could not rely exclusively on nuclear weapons in dealing with China because of China's vast territory, complicated terrain and huge numbers of people.

[REDACTED]
(1960-1969 cont)

Thus, their defense strategy provided for the possibility of a protracted war on Chinese soil, requiring large conventional forces. This strategy sought to exploit time, space, manpower, and will.

(e) The Chinese initial program for construction of space and missile related facilities, which had begun in 1957 or 1958, was insulated from the ravages and collapse of the Great Leap Forward. With the withdrawal of Soviet technicians in 1960, however, progress in the program was slowed; nevertheless, the Chinese did move forward with a broad R&D program. Possibly even to a greater extent, the Chinese appear to have successfully isolated the nuclear energy program from disruptive domestic influences.

(f) At the same time, China's military leaders continued to realize that until China had developed an effective go-it-alone capability, they could find themselves dependent upon Soviet assistance in any Sino-US confrontation. Just what form that assistance would take and under what circumstances it could be expected remained very much in question. As a consequence new emphasis was placed on self reliance as a solution to national defense problems and on the theme of "man-over-weapons" as the determinant in war. The 1962 Sino-Indian border incident provided no reason to change

(1960-1969 cont) [REDACTED]

that theme. On the other hand, the Cuban confrontation in 1962 offered the Chinese a rather telling lesson in the consequences of serious strategic inferiority.

(g) That the Chinese were interested in developing a tactical nuclear capability, as well as strategic, can be traced back to at least 1961. At that time training in both defensive and offensive tactical nuclear situations was being stressed in support of conventional forces. In policy terms the Chinese may have calculated that a tactical nuclear capability could be used to persuade a nuclear armed enemy against intervening in local crisis situations or raising intervention to a nuclear level.

(h) In October 1964 China joined the nuclear club by conducting its initial atomic test at Lop Nor, in western China. This was the prelude to a series of increasingly sophisticated test shots which has continued up to the present. In announcing this test, the Chinese promulgated a "no-first use" policy, reiterated Mao's atom bomb-paper tiger theme, repeated China's advocacy of complete prohibition and destruction of all nuclear weapons, condemned the Moscow test ban treaty of 1963 as a "big fraud to fool the people of the world," and stated that "China's aim is to break the nuclear monopoly of the nuclear powers ..."

(i) The Chinese conducted the first firing of an MRBM missile with a range of about 600 nm in 1963

(1960-1969 cont) [REDACTED]

and the first firing of an IRBM having a range of 1,400 nm in 1966. On 27 October 1966, they conducted their first, and to date only, missile delivered nuclear test (CHIC 4).

(j) Events following the Gulf of Tonkin incident in 1964 created consternation among China's hierarchy. Most troubling was the bombing of North Vietnam which created a real fear that it would be extended into China. This precipitated a new debate within the Peking leadership, not on whether China should enter the war but rather how China could best be defended against the US air attacks. The conservative elements in the leadership again prevailed and China continued to stress scientific/technological development over a spectacular force development and modernization program. Out of that debate emerged a relevant Chinese doctrinal statement. In an article on 10 May 1965 Lo Jui-ching, then Chief of the General Staff, wrote:

Our principle is: We will not attack unless we are attacked, if we are attacked we will certainly counterattack. .

(k) In June 1967, China exploded its first thermonuclear device in its sixth nuclear test.

(l) The Chinese cultural revolution during the period 1966-1969 had far reaching effects on the political, governmental, military, educational, and economic spheres of Chinese society. Again, strategic, nuclear and

[REDACTED]

(1960-1969 cont)

related activities were insulated from these disruptive domestic events and progress continued to be made in the acquisition of a strategic deterrent posture.

(m) During this same period the United States both became fully involved in the Vietnam War and began to feel domestic as well as some international pressure to withdraw from that war. These facts, most significantly the latter, were not lost on the leaders in Peking. The commitment of the US to the war confirmed in Chinese eyes the estimate that, where a people have a will to make revolution and can appeal to weaknesses and instability in an existing regime, a breeding ground for wars of national liberation exists. Of special importance, however, was the knowledge that at no time during the period before the bombing of North Vietnam ended in 1968, had the US made any threat to attack China. While this would not mean that the Chinese could totally discount a US threat and more particularly a nuclear attack, they certainly must have perceived that the US had explicitly sought to avoid a direct confrontation with the PRC. It is, therefore, possible to deduce that the Chinese could, with some sense of relief, turn their attention to the developing threat along the Sino-Soviet border.

(n) In 1965, the Soviets had begun a buildup of their forces along the Sino-Soviet border. This buildup accompanied by increasing tensions certainly enhanced

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(1960-1969 cont)

the possibility of clashes involving ever increasing numbers of men and equipment, despite the fact that Chinese troop deployments remained largely unchanged. The border clashes beginning with the Ussuri River incident in March 1969 clearly pointed up in Chinese eyes, a serious Soviet threat.

(o) The Chinese began troop training firings of the CSS-1 (MRBM) system at least by the spring of 1969 in preparation for deployment.

[REDACTED] b. The evidence

(1) Force deployments

(a) PLA troop deployments remained generally stable during this period and showed little evidence of any significant reaction to perceived external threats or international developments. However, substantial steps were being taken to assure the survivability of the Chinese military forces, industry, and the civilian population.

(b) A campaign was initiated in 1959 to disperse and harden military installations. This was clearly a passive defensive strategy undertaken to reduce the effects of a nuclear attack. In the early 1960s, this campaign was expanded to include heavy industries. The attainment of a nuclear capability in 1964 did not lessen the pace of dispersal and hardening, and the "war preparations" campaign of 1969 broadened the scope of such activities.

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(1960-1969 cont)

(c) On 9 June 1961 an instruction on construction policy was published by the General Staff Department, the General Political Department, and the General Rear Services Department. It was approved by the Military Affairs Committee (MAC) and stated that the instruction was necessary to insure an understanding of the sudden nature and destructiveness of modern warfare and of carrying out the MAC construction policy. The instruction continued:

For strategic requirements, new barracks, warehouses, and factories must be built in locations far from large- and medium-sized cities, communication and transportation centers, large manufacturing and mining districts, large reservoirs, and densely populated areas. They should be built near and into hills, on hillsides, and be properly dispersed according to topographic and terrain conditions. Furthermore, they should be properly camouflaged.

(d) This instruction certainly indicated that the Chinese did not expect a purely counter-force campaign and were concerned with the question of survivability. Thus, renewed stress was being given to the government policy on dispersal, hardening, and redundancy. Similar stress was being given to at least some civil defense measures. In the early 1960s the Chinese initiated a program of building personnel air-raid shelters. According to available evidence this program is nationwide and has been progressing at a steady pace. Shelter construction received

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(1960-1969 cont)

two added shots-in-the-arm by government direction during the 1960s. The first was during the mid-1960s when the bombing of North Vietnam started and the second followed the Sino-Soviet border clashes in 1969. By 1968, over 100 personnel shelters had been identified in Shanghai and in several cities in north and northeast China.

(2) Exercises and training.

(a) During this period, Lin Piao succeeded Peng Teh-huai as Minister of National Defense. Lin instituted the "revolutionized" military, requiring the Chinese communist forces to develop the "glorious tradition." Emphasis was now on ideological training and required a minimum of 50% of the time be assigned daily for studying Mao's writings. The remaining hours were used for the work of the masses and part time agricultural production. This left little time for actual military training. Lo Jui-ching, Chief of General Staff under Lin, felt this emphasis was detrimental to national defense. Without Lin's approval Lo shifted the emphasis back to military training. For his efforts Lo, like Peng Teh-huai, was purged on the charge of treason against the armed forces. It became obvious that stressing military training over political training was unsafe.

(b) Military training during this period emphasized basic training within the company, especially on the individual soldier, team, squad and platoon levels.

(1960-1969 cont)

After a good foundation had been laid by company-level units, the military regions could arrange joint training for a few battalions, regiments, and divisions, as required. The India/PRC conflict, Sino/Soviet split, and the Gulf of Tonkin incident all took place during this time period, however, none of them seemed to affect the training doctrine.

(c) Between 1967 and the present, two events occurred which greatly effected the course of PLA training. The cultural revolution brought most large-scale military training to a standstill. What training that did take place had the following characteristics:

1 Short training periods -- courses which usually lasted several years were now telescoped to a few months;

2 Emphasis was placed on experience and not theories;

3 Mutual teaching and learning between students;

4 Inferior quality of students as a result of emphasis on family background and political outlook;

5 Frugality -- lack of training facilities, equipment, and instructors necessitated keeping training very basic.

(1960-1969 cont)

[REDACTED]

(d) The 1969 border conflict with the Soviet Union awakened the Chinese to the need for effective military training. Although ideological training remains number one in priority, military training has been upgraded to prepare for combat. Combat readiness exercises are emphasized as well as bivouac training, live ammunition firing, sea-air, and land-air joint exercises, and long-distance marches. The largest and probably the most extensive field and command post exercises ever conducted by the Chinese have taken place since 1969. This type of training is continuing.

(e) In 1968, the large surface-to-surface missile training facility identified at Wuwei appeared to be getting ready for a new phase of activity. Possibly as early as August 1968, but certainly no later than the spring of 1969, training of some missile force personnel had begun there. Meanwhile, live firing exercises had begun at Shuang-cheng-tzu.

(3) Command and control.

(a) Little evidence is available concerning command and control systems being developed by the Chinese in support of their strategic nuclear forces during this period. Several references to a "Second Artillery" created a basis for speculating that the Chinese were establishing their counterpart to the Soviet Strategic Rocket Forces. However, there was insufficient evidence during this

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(1960-1969 cont)

time to verify the function and operational methodology of this organization.

(b) Command and control of conventional forces, during this time, as reflected by communications intelligence, indicated a high degree of centralized control at Ministry of National Defense level.

(4) Research and development

(a) The gaseous diffusion plant at Lanchou, construction of which began in 1957, probably commenced operation in 1963. Construction of a plutonium production complex at Yumen, in Kansu Province, was also started in 1958 or 1959. This construction continued steadily for at least the next decade and operation of the large plutonium chemical separations plant position of the complex commenced in the latter part of 1970. During that same early period of time (1959) the Chinese began construction of a nuclear stockpile site and large weapons complex, both near Koko Nor. The facilities probably became available for use sometime in 1965.

(b) It is considered possible that beginning in the late 50s, the Chinese put such a high priority on development of a viable nuclear energy program, particularly as it related to weapons development, that a higher ratio of China's scientific expertise was assigned to this program than that devoted to similar programs by either

(1960-1969 cont) [REDACTED]

the US or the USSR. Regardless, Peking realized that a nuclear capability remained some distance in the future. In January 1961, a Chinese military leader stated that should a war occur within the next three to five years the Chinese would have to rely on hand weapons. This seemed to imply that the Chinese leaders did not expect to acquire a nuclear weapons capability before 1964-66.

(c) The first Chinese nuclear test was conducted at Lop Nor on 16 October 1964 (CHIC 1). It was a tower shot involving a fission device with a yield of 25 kilotons. However, of the ten test shots that followed by 29 September 1969, six are believed to have been related to thermonuclear development. The others had as their goals the adaptation of CHIC 1 for bomber delivery and test of a missile warhead (CHIC 4). CHIC 6, an airdrop test on 17 June 1967, was the first full-yield, two-stage thermonuclear test.

(d) The Chinese conducted their first test launch of a ballistic missile (CSS-1) in 1963. Test launches continued throughout the period with this system furnishing the delivery vehicle for the first, and to date only, missile delivered test shot, in October 1966 (CHIC 4).

(e) Production of the Chinese version of the TU-16/BADGER jet medium bomber began in 1968.

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(1969-1972)

3. 1969 - 1972 -- An Emerging Strategic Nuclear


Capability

[REDACTED] a. Nuclear weapon employment and strategy.

(1) Perception of the threat: Soviet nuclear attacks of either a nationwide or selective nature accompanied by large scale assaults by conventional forces. The likelihood of US attacks on China is seen as being greatly reduced, unless China were to create a severe provocation.

[REDACTED] (2). Responses and initiatives.

(a) While immediate Chinese military response to the Ussuri River and subsequent incidents was negligible, Peking initiated a vigorous psychological campaign urging the Chinese people to wage an all-out struggle against the "new Tsars." During the late summer of 1969, there were numerous indications that the Soviets could be preparing to use nuclear weapons against China. China's only apparent response was to initiate a "war preparations" program. Although a border truce was initiated between the two countries in October 1969, the exchange of acrimonious charges and countercharges has continued, and it is now evident that by the latter part of 1969 the Chinese recognized the Soviet threat as the most immediate and most ominous. Since that time, China has augmented its ground and air forces deployed in the military regions and air districts contiguous to the border. This augmentation, however, has been fairly modest

(1969-1972 cont) 

and the bulk of the forces remain in a defensive posture considerably removed from the border.

(b) It became evident prior to 1971 that China intends to become a major nuclear power. To achieve this goal, the Chinese are willing to accept the economic burden involved and the risks of slowing basic economic development through diversion of scarce resources and skills to specialized defense tasks. This is apparent in that activity in both general purpose and strategic military programs is at an all time high, but still must be considered as moving at a moderate pace. It is equally evident that some principles other than Mao's "peoples war" guide the costly and wide-ranging strategic weapon programs now underway. Those programs appear to be designed to ultimately provide for a considerable systems-mix and a number of options in warhead yield.

(c) It is probable that China deployed some CSS-1 MRBMs, possibly as early as 1969, and a small number of CSS-2 IRBMs beginning in late 1971. Training of CSS-2 crews had begun in 1970. No firm evidence of such deployments is available. However, 1972 photography indicates the probable imminent deployment at two separate locations in China as well as the identification of CSS-1 ground support equipment at a

(1969-1972 cont)

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military installation in the Peking Military Region. It is highly likely that if deployment has occurred, a major portion of the missiles are targeted against the Soviet Union.

(d) The Chinese have twice flight tested a third missile system which appears to have sufficient range to provide full coverage of the USSR. It could be operational by 1974-75. Known as the "Chingyu" missile, it is liquid propelled and is a two-stage vehicle with the first stage probably incorporating the design and technology of the CSS-2. This missile could be intended for hardened site deployment. Additionally, on 10 September 1971 the Chinese tested at reduced range a missile having the characteristics of an ICBM capable of striking targets within the continental United States. Operational deployment of this missile is not expected to occur before 1975 or 1976. At the same time the Chinese recognize that both the US and the USSR are developing strategic defenses including antiballistic missiles (ABMs), which would be more effective against the limited Chinese nuclear attack capability than they would be against each other. Chinese countermeasures are not known at this time.

(e) The Chinese appear to be on the brink of establishing a tactical nuclear capability. The two most recent nuclear tests (CHIC 12, CHIC 13) are suggestions of a new phase of the PRC test programs. Both were low yield

(1969-1972 cont)

weapons. It appears possible that CHIC 13 was delivered by an F-9 fighter aircraft and may have been a proof test of a weapon. As with strategic nuclear weapons, the Chinese have given no indication of their doctrine for the deployment and employment of tactical nuclear weapons.

(f) During the late 1950s, China had become increasingly disturbed by perceived Soviet efforts to obtain arms-control arrangements. On 21 January 1960, the Chinese National Peoples Congress passed a resolution stressing that China would not be bound by any disarmament except with its express consent and that it would accept no disarmament agreement unless it had participated in the negotiations. The Chinese were to continue to deprecate the "tripartite" nuclear test ban treaty and to stress "the legitimate right of all peace-loving nations to develop armed forces for self-defense." In 1963, Premier Chou En-lai enunciated for the first time the Chinese position that a summit conference on nuclear matters should include all the countries of the world, large and small. On the other hand, on 24 June 1966, the authoritative "Observer," in the Peking Review, stated ...

... Chinese representatives definitely will not attend any world disarmament conference within or outside the United Nations... The Chinese Government will advocate the complete prohibition and thorough destruction of nuclear weapons when the US nuclear threat is countered.

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(1969-1972 cont)

(g) As recently as 7 August 1971, Peking rejected a Soviet proposal for the convening of a five-power conference, to include the US, the USSR, China, Great Britain, and France, to discuss the question of nuclear disarmament. In their statement, the Chinese said that they had consistently stood for the complete prohibition and thorough destruction of nuclear weapons and had declared on many occasions that under no circumstances will China be the first to use nuclear weapons. The statement went on to indicate that the PRC would at no time participate in a disarmament conference between the nuclear powers behind the backs of the nonnuclear countries. It urged Moscow and Washington to openly agree not to be the first to use nuclear weapons at any time or under any circumstances and called for the dismantling of all nuclear bases and stockpiled weapons on foreign soil. Following their admission to the United Nations, the Chinese again rejected a Soviet proposal for a world disarmament conference placed under consideration by the 26th United Nations General Assembly. The Peking representative reiterated the previously expressed Chinese objections to such a conference. There is some indication of growing Chinese interest in participating in multilateral arms negotiations through the Conference of the Committee on Disarmament (CCD). However, it is also evident that while the

(1969-1972 cont) [REDACTED]

Chinese may be adopting a more pragmatic approach to the disarmament question, they have, as yet, shown no inclination to abandon any of their stipulated requirements essential to the convocation of a disarmament conference.

(h) The Chinese leaders are watching the US and USSR SALT exchange and are intently interested in the outcome as it could have an important impact on the PRC strategic program. The two areas of prime interest are those of ABM developments, which could counter the Chinese missile program, and the possibility of no agreement constraining missile development or deployment posed against the PRC. The arms limitation program will-probably become more of an issue as the leadership changes in China and the worldwide political area develops. Since the end of the cultural revolution and more particularly since joining the UN in late 1971, the Chinese have begun to develop international relationships. If the Chinese were to participate in arms limitation talks, it would probably be through the UN channels.

(i) Since coming to power the Chinese communists have sought to insure the existence of friendly states on their borders. In addition, the Japanese are seen by Peking as representing the greatest potential threat of any power in Asia with the exception of the USSR. Therefore, they are making strenuous efforts to discourage the rebirth of

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(1969-1972 cont)

Japanese militarism, particularly acquisition of a nuclear capability. Concurrently, however, they are seeking Japan's technological and industrial know-how to improve the PRC economy and industrial base, particularly as it relates to their defense posture. The Chinese would view as an extremely serious development any Japanese move into the nuclear arena and could see in it a need for expanding their own strategic offensive capability.

b. The evidence.

[REDACTED] (1) Force deployments.

(a) By the latter part of 1969, the Chinese had recognized the Soviet threat as the most ominous and immediate as any confronting them. Since that time, China has augmented its ground and air force elements deployed in the military regions and air districts contiguous to the border. This augmentation has been modest and the bulk of the forces remain in a defensive posture considerably removed from the border.

(b) The Chinese Navy, while still essentially a coastal defense force is continuing to acquire more effective units and is beginning to deploy its units for longer operational periods and possibly to more extended ranges from the coast than at any time previously. The augmentation of the fleet with guided missile destroyers and destroyer escorts and with an increasing number of new

(1969-1972 cont) [REDACTED]

attack submarines provides the Chinese with a blue water operational potential and the capability of seeking out and attacking enemy strategic naval forces at increasing distances from the Chinese mainland.

(c) During this period the Chinese air force underwent considerable modernization. Production of MIG-21s and the Chinese designed F-9, believed to be destined for a ground attack role, commenced and production of the MIG-19 was accelerated. Production of the TU-16 jet medium bomber and the IL-28 light jet bomber continued, also. Deployment of these aircraft to operational units occurred and the F-9 may have been the delivery vehicle for CHIC 13. Delivery of the TU-16/BADGER to the 4th Independent Regiment began and at present 32 of these aircraft are operational.

(d) It is believed that the Chinese have deployed in limited numbers the CSS-1 and CSS-2 surface missiles. Deployment could consist of from 15 to 30 CSS-1 launchers and 15 SCC-2 launchers. It is assumed that a large portion of such deployed missiles would be oriented against the Soviet Union. Regardless, the imminent deployment of surface-to-surface missiles (SSMs) is indicated in recent satellite photography. A probable SSM-related installation at Tienwei, 53 miles north of Kunming, was detected in photographs taken on 21 January. Another missile complex revealed in the 21 January photography was 11 nautical miles southwest of Kunming. A third SSM-related

TCS-364775-32

[REDACTED]

[REDACTED]

(1969-1972 cont)

installation is located near Liuchingkou in northcentral China. Five miles to the northeast of Liuchingkou another SSM-associated facility has been detected. Facilities at Kunming in South China and Liuchingkou in northwestern China appear to be constructed for such operational deployment. A CSS-1 MRBM (600-nm range) with a three-megaton warhead deployed at Kunming could reach targets near the Vietnamese DMZ, in northern Thailand, and India east of Bangladesh. On the other hand, the most logical missile to be deployed at Kunming would be a CSS-2 IRBM, which would bring Taiwan, all of southeast Asia, and almost half of India within range. The inland location of Liuchingkou dictates that the CSS-2 IRBM be deployed there. The CSS-1 would cover only a small portion of Mongolia, while the CSS-2 would enable China to strike targets in the USSR, India, most of Southeast Asia, Taiwan, and South Korea.

(e) Ground support equipment identified with the CSS-1 system has recently been observed in satellite photography at a military facility in the Peking Military Region.

(f) A facility for producing the new Chinese designed SUUJI, a long range early warning radar has recently been identified at Sha Sheik. The new radar, which was first seen in 1971, greatly increases China's early warning

TCS-654775-72

(1969-1972 cont) [REDACTED]

detection capability. It is believed that up to ten of these radars have been deployed to date.

(g) The Chinese appear to be well on the way to developing a nuclear powered ballistic missile submarine. The single GOLF class conventionally powered ballistic missile boat in the Chinese inventory is believed to be committed to a test platform role in developing a new missile of native design. Recent evidence of land based ejection facilities as well as construction of an off-shore tube launcher for underwater ejection tests has been detected. The Chinese designed and built HAN class submarine has been undergoing sea trials since August 1971. If not yet operational it should be in the near future. The HAN class submarine is believed to be a nuclear powered torpedo attack boat. While this class boat will greatly improve the Chinese Navy's distant defense capabilities against enemy nuclear equipped surface forces, one of its most significant features is that it will serve as a stepping stone in the development of a Chinese nuclear powered, submarine launched ballistic missile (SSBN) force. Such a force would enhance Peking's assurance of an effective retaliatory capability, as well as strengthening her deterrent posture. It is estimated that China's first SLBN could become operational in 1976.

(2) Exercises and training.

(a) The 1969 border conflict with the

[REDACTED]

(1969-1972 cont)

Soviet Union awoke the Chinese to the need for effective military training. Although ideological training remains number one in priority, military training has been upgraded to increase combat effectiveness. Combat readiness exercises are emphasized as well as bivouac training, live ammunition firing, sea-air, and land-air joint exercises, and long-distance marches. Since 1969 the largest and probably the most extensive field and command post exercises ever conducted by the Chinese have taken place and this type of training is continuing.

(b) Following an intensified and apparently successful testing of the CSS-1 (MRBM) in 1966, little activity was observed relating to this system from the fall of 1966 through early 1969. During that time there were occasional exercises and possible indications of a few firings but no firm evidence of troop training. At the Wuwei missile school, no equipment was observed and some type of construction which had begun in 1966 continued at a very slow pace through at least 1969. The picture began to change in 1969-1970, however, as evidence accumulated of renewed MRBM activity. It now appears reasonably certain that troop training, involving live firings from Shuangchengtzu and possibly classroom and missile handling instruction at Wuwei, was underway at least by the spring of 1969 if not by August 1968. Training at both Shuangchengtzu and Wuwei has continued up to the present.

[REDACTED]

(1969-1972 cont)

The first photographic evidence of CSS-2 training was obtained in November 1970. This training which is being conducted at Wuwei is continuing at this time. Live firings of this missile have been conducted from a launch facility at Wuchai, southwest of Peking, and possibly represented training exercises beginning in mid-1969.

(3) Command and control.

(a) Little definitive data are available on Chinese command and control procedures for nuclear weapons systems. Further, as the PRC nuclear force is just emerging as a viable force, little change in the Chinese command and control policy or strategy has been noted in response to international incidents or changes in strategy of other nuclear powers. However, the command and control communications systems for all services is being modernized with the increased use of radioprinter equipment from the Ministry of National Defense level down to major field and territorial commands.

(b) In 1971, the main missile control authority moved from the test range at Shuangchengtzu to Sian in central China. This location would place this control authority in the middle of the known missile related activities. The location of probable SSM-related facilities near Kunming in southern China and Luichingchou in northcentral China would mean the new controller would be in the center of this

[REDACTED]

(1969-1972 cont),

missile activity. It is too early to predict the impact of this move on overall missile command and control procedures.

(4) Research and development. The PRC has conducted 14 nuclear weapons development tests during the period October 1964 to March 1972. The tests, designated chronologically as CHIC 1 through 14, involving four fission devices (the first, second, fourth, and thirteenth) one probable fission device (the ninth test), and eight thermonuclear devices, (data concerning CHIC 14 is insufficient to permit evaluation at this time). The first 11 PRC tests, CHICs 1-11, appeared to be directed at the development of satisfactory low yield fission (10s of KT) and high yield thermonuclear (3 MT) weapons. In this group of tests, two basic fission device/primary designs and one basic thermonuclear design have evolved from analysis of the test debris. The 12th - 14th tests appear to represent a new phase in the PRC nuclear weapons program. This phase may include basic studies of thermonuclear weapons phenomenology and tactical nuclear weapons development.


(5) Nuclear facilities and production. Since January 1971 a second set of new nuclear facilities have been identified. This included a gaseous diffusion plant at Chinkouho which is estimated to be able to produce more U-235 than the original plant at Lanchow. This new facility should begin partial production in late 1972. with

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[REDACTED]

(1969-1972 cont) [REDACTED]



full operation in late 1974. There is an additional reactor for production of plutonium at Kuangyuan and additional weapons grade material could enter the stockpile by 1974-75. Also, there is a possible new weapons fabrication facility located at Izutung. All of these new facilities will give the PRC the capability of becoming the third largest nuclear power in the world. Based on their production capability, the Chinese could have as many as 420 thermonuclear warheads and 260 fission nuclear weapons in the stockpile at this time.



PEOPLES REPUBLIC OF CHINA

NUCLEAR WEAPONS EMPLOYMENT
POLICY AND STRATEGY

ANNEX A: Force Development and Deployment



DOE 10078-19

[REDACTED]

General

In general, the deployment and development of the Peoples Republic of China's (PRC) armed forces in response to external crises has not been dramatic. A possible reason for China's apparent irresponsiveness to external crisis may be simply that it has not had the flexibility or capability to respond to shifting external events, with internal considerations, such as the Great Leap Forward and the Cultural Revolution, being far more demanding or limiting than external considerations. (U)

Other than the movement by Chinese Communist ground forces to Korea (25 armies by mid-1952) and to the Fuchou coastal area (two armies in 1958 and two-plus armies in 1962), the ground force deployment of five armies from South China northward towards the Sino-Soviet border in late 1969-early 1970 represents the largest troop movement since the end of the China Civil War in 1950. Air and naval force deployments have remained relatively stable even in the face of apparent increased external threats. China has traditionally positioned the bulk of its forces in and around vital areas and along principal lines of communications, reflecting a defensive oriented military posture designed to cope with external threats from any direction. [REDACTED]

To cope with the external nuclear threat, a campaign was initiated in 1959 to disperse and harden military installations. This was clearly a passive defensive strategy

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[REDACTED]

[REDACTED]

undertaken to reduce the effects of a nuclear attack. China's lack of a nuclear capability dictated the necessity for such a campaign. In the early 1960's, this campaign was expanded to include heavy industries. The attainment of a nuclear capability in 1964 did not lessen the pace of dispersal and hardening, and the "war preparations" campaign of 1969 broadened the scope of such activities to include civil defense measures to protect the population. (U)

Likewise, external developments have generally had little effect on the development of the Chinese Communist missile program with the possible exception of the Sino-Soviet Border Dispute of 1969. Deteriorating border relations with the USSR as early as 1968 may have caused the Chinese to re-think their missile strategy for deployment of an MRBM system. In August 1968, MRBM (CSS-1) troop training exercises were initiated at the Shuangchengtzu Missile Test Range (SCTMTR), and to date there have been 14 confirmed crew-training firings. Although there are only two detected SS missile sites, near Kunming City in Yunnan Province, South China, the Chinese could have deployed 15 or more missiles to other undetected areas, possibly most confronting the USSR. [REDACTED]

Other missile system developments may have been influenced by the border incidents of 1969 -- IRBM (CSS-2) firings from Wuchai (at least 14 to 16 CSS-2 firings; possibly two of these in 1971 associated with training) and the Chingyu missile from Chingyu in November 1970 and 1971. The CSS-2 has many advantages TCS-654775-72

[REDACTED]

[REDACTED]

including a greater range (1,500 nm) over the CSS-1 and it is likely to be deployed in much greater number with deployment possibly having begun in late 1971. [REDACTED]

The Chingyu missile is believed to be a two-stage variant of the CSS-1 with a longer-range capability providing the Chinese with an improved strategic posture. This system with a range greater than 3,000 nm would reach targets in European Russia and give the Chinese a considerable degree of latitude in choosing deployment areas. The IOC for this system is not expected until 1974 or 1975. [REDACTED]

The only missile that could be a direct threat against the US is a 6,000 nm-range ICBM. The Chinese flight tested a vehicle with ICBM characteristics to a reduced range in September 1971. - The earliest possible IOC for an ICBM based on this vehicle would be late 1974, but more likely a year or two later. [REDACTED]

Ground Force

In mid-1950, CCA strength was estimated to be 2.3 million. These personnel were organized into four "Field Armies" and one "Military Area" consisting of 19 "Army Groups." A total of 69 "Armies" were assigned to these "Army Groups." (U)

In October-November 1950, the PRC intervened in the ongoing hostilities in Korea and by mid-1952 had deployed 25 armies to that theater. These units were drawn from throughout China and included some former Nationalist units. The PRC began to withdraw its forces from Korea in late 1952.

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[REDACTED] [REDACTED]

[REDACTED]

and early 1953. By late 1954, only 11 "Armies" remained in Korea. (U)

During the period of intervention in Korea, the CCA was reorganized along more conventional lines. Almost one-half (32 of 69) of the previously-designated "Armies" were deactivated during this period and their personnel absorbed by the remaining units. By October 1964, the deployment of Army-level units was as reflected in Table 1. (U)

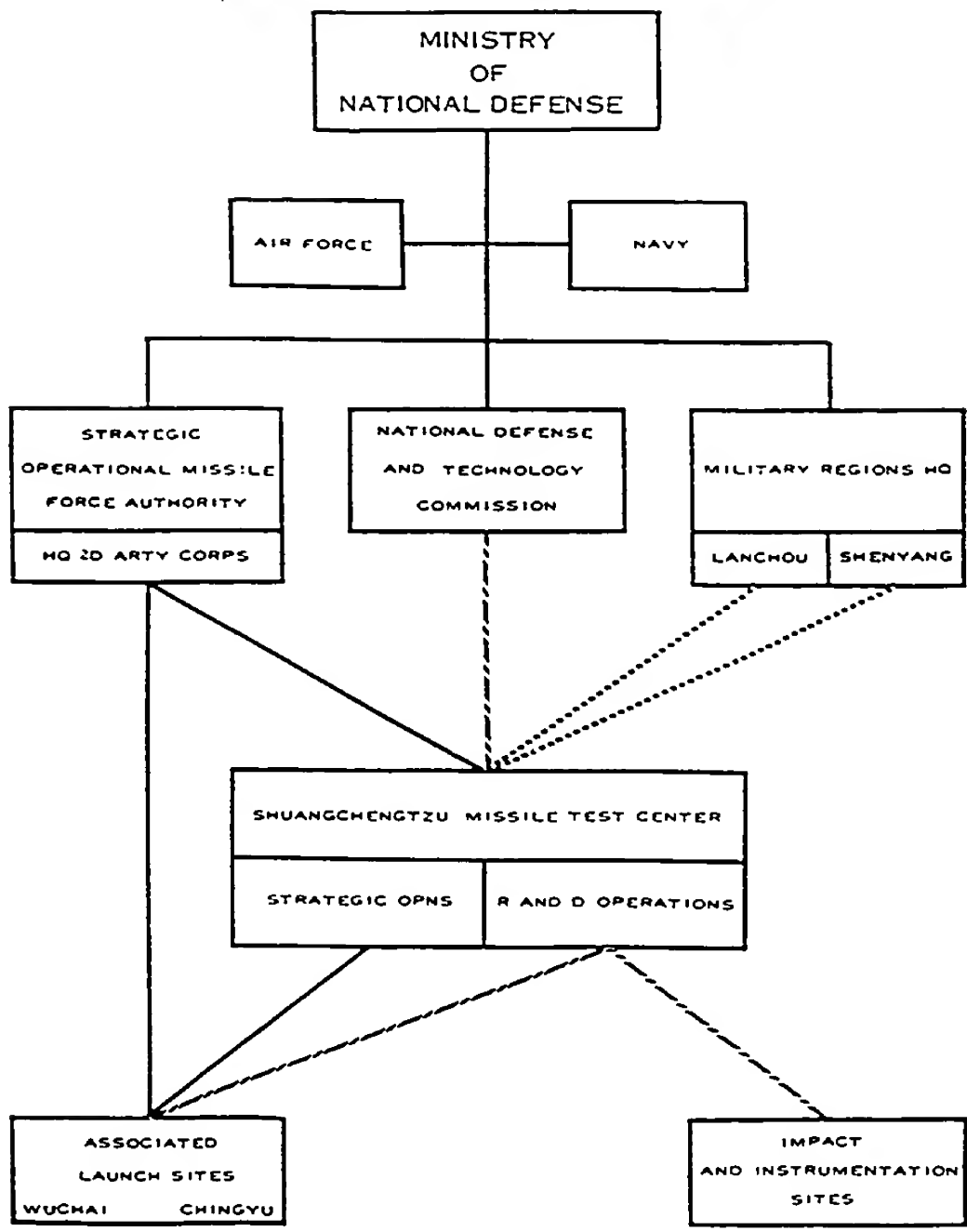
Between 1954 and 1960 the remaining 11 armies were withdrawn from Korea and redeployed principally to Northeast, North and East China areas, so that by 1 April 1960, the deployment of Army-level units was as depicted in Table 1. (U)

As shown in Table 1, deployment of army-level units of the CCA remained rather surprisingly stable during the period following the Korean War despite the Taiwan situation, the Gulf of Tonkin incident, the US buildup in South Vietnam, the cultural revolution and the Sino-Soviet border disputes.

In 1971, two additional army-level units were formed bringing the total to 36. Some redeployment was noted and the number of armies in Peking MR increased by two. Army strength for selected years is shown on Table 4. [REDACTED]

Navy

At present, the PRC Navy is to all intents and purposes a coastal defense force which does not possess nuclear weapons. Naval nuclear strategy appears to be one of



— COMMAND CHANNELS
..... ADMIN AND LOGISTIC CHANNELS
- - - - R AND D COMMAND CHANNELS

APPENDIX A



[REDACTED]

survival in the event of a preemptive nuclear attack. (U)

The development of the navy since its formation in 1949 has been spectacular. From a heterogenous collection of World War II vessels left by the Chinese Nationalists in 1949, the force has expanded to a current strength of 1,235 units (Table 2). However, this expansion can nonetheless be attributed to a normal growth pattern and cannot be related to any external stimuli. To comply with a nuclear strategy of survival, the growth of the force necessitated a concomitant need for support and dispersion. ChiCom naval shore facilities have steadily developed matching overall naval growth. From an approximate total of eight facilities in 1949, naval infrastructure now totals more than 170 shore facilities located throughout the three fleet areas. [REDACTED]

Since 1963 at least, the Chinese have embarked on a program of providing a number of naval bases with underground facilities. At least 16 bases located throughout the fleet areas have in various stages of completion, underground facilities suitable for entry, berthing and repair of either boats or submarines. The function of the underground installations appears to be two-fold. They provide protected berthing to effect minor repairs as well as storage for missiles, ammunition and logistics. The dispersed location and reinforced construction will improve PRC naval chances of survival in the event of preemptive nuclear strike. [REDACTED]

[REDACTED]

Air Force

Communist China's strategic air capability is limited to a small force of medium bombers assigned to the Chinese Communist Air Force (CCAF) 4th Independent Regiment (4th IR). A portion of China's 350 aircraft jet light bomber force could be used in a limited strategic role; however, the IL-28 BEAGLE's low performance envelope mitigates against its use for strategic bombing. [REDACTED]

The 4th IR came into existence with the delivery of 10 TU-4 BULL propeller medium bombers to Peking in February 1953. In following years three more of these aircraft were acquired from the Soviets, and in January 1959 China received two TU-16 BADGER medium jet bombers from the USSR. China began producing the BADGER at the Hsian Airframe Plant in 1968 and now has 32 BADGERS in the operational inventory in addition to 12 BULLs. An additional 19 BADGERS have been produced but have not yet been turned over to the 4th IR. [REDACTED]

From 1953 until 1971 the 4th IR had only three home bases. The original 10 BULLs remained at Peking from February 1953 until March of that year when they moved to Shihchiachuang Takuotsun. They remained there for one year, moving back to Peking in March 1954. Then in February of 1955 the unit moved to Wukung, its present home base. From 1955 until 1971 all 4th IR aircraft were based at Wukung; however, since mid-1971 the BULLs have been at Manshui Airfield and since late-1971 six BADGERS have been at Tatung Chingshuiho. It is possible that Manshui and Tatung now house 4th IR

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[REDACTED] [REDACTED]

[REDACTED]

aircraft on a permanent basis with the expansion to those bases made necessary by continued production and deployment of BADGERs. In addition to 4th IR home bases, aircraft from this unit have operated for short periods of time from numerous other airbases in China. The BADGERs have been detected operating from Kucheng, Huaite, Shuangchengtzu, Wushihtala, and possibly from Wuwei, Nanching Tachiaochang, and Kaerhmu. [REDACTED]

There has been no apparent relation between disposition of 4th IR aircraft and international events; however, the move in 1955 from Peking to Wukung may have been for defense purposes -- to improve survivability in the event of air attack. [REDACTED]

Medium bomber crew training began almost immediately upon receipt of BULLs in 1953 and progressed steadily until extensive long-range night bombing training was noted in late 1954. By 1956, BULL crews were considered proficient in medium altitude bombing under instrument flight conditions. [REDACTED]

The intelligence picture for 4th IR BADGER training activity is not so complete as for BULL crews. BADGER flight activity was first detected in July 1962. Since that time detected flight activity has been sporadic yet increasing. Night flight activity was not noted until 1970. The first confirmation of BADGER bombing training was provided by satellite photography on 13 August 1971 when a BADGER was photographed exiting the Hsingjenpao bomb range. Subsequent COMINT reporting has identified BADGER activity that began

TCS-654775-72

II-A-7

[REDACTED]

[REDACTED]
in 1969 and has continued over this range as bombing training. Recent intensification of this training coupled with the highest noted altitudes for BADGER activity -- 41,000 feet -- confirms China's serious intent to develop a strategic strike capability. [REDACTED]

In addition to normal training missions, 4th IR aircraft have been used for a variety of secondary missions. BULLs may have been used against Tibetan dissidents, to shadow intruding CHINAT aircraft, in air defense exercises, and for aerial survey missions. BADGERs were used extensively in 1970 for air defense exercises in Northeast China. Both BULLs and BADGERs have been associated with special weapons programs. In addition to participating in nuclear tests both as drop aircraft and in air sampling roles, BULLs and BADGERs have been photographed in the air-to-surface missile area of the Shuangchengtzu test center. [REDACTED]

Little is known of China's strategic delivery tactics. In fact, they are probably still in the process of formulation. An analysis of the latest bombing training indicates that they may intend to attack a target in 2-3 ship cells, each cell approaching the target from different directions and at widely-separated altitudes, and with the lead plane in each cell several minutes ahead of the others. [REDACTED]

Communist China's strategic air capability is limited by old aircraft and a small inventory. While BULL crews are believed to be highly proficient in both day and night

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[REDACTED] [REDACTED]

[REDACTED]

operations, the aircraft is highly vulnerable to virtually all air defense weapons. Proficiency of the BADGER force as a whole is assessed as fair for medium to high-level daylight bombing and poor for night operations. The TU-16 does not have a low-level capability. With continued training, the BADGER force will likely reach a high degree of proficiency in high altitude bombing under instrument flight conditions. However, the BADGER is extremely vulnerable to modern air defense weapons systems and would be hard-pressed to survive in the air defense environment over the Soviet Union. China's medium bomber force does not presently have an air-to-air refueling capability; however, it is considered within the PRC's technical capability to develop one. [REDACTED]

In summary, deployment and development of China's strategic air force has not been governed by external events with the possible exception of defensive positioning of the force in central China. This lack of response to external events is not isolated to the 4th IR but has been true of China's air defense and tactical air units also. As a primary defensive force, China has traditionally positioned the bulk of her air defense and tactical air units in and around key areas with little change in posture ever evidenced because of apparent increased threats. (See Table 3) [REDACTED]

Missile Force

External developments have generally had little effect on the development of the Chinese missile program with the

[REDACTED]

possible exception of the Sino-Soviet border incidents. The cultural revolution did not have any apparent effect on the Chinese missile program. [REDACTED]

The MRBM (CSS-1) test program is believed to have ended with the firing of a nuclear-tipped missile in October 1966. The MRBM was then believed to have been ready for operational deployment. From 1967 to 1970, the Chinese tested the IRBM (CSS-2) to a range of 1,400 nautical miles. Also during this period, the Chinese modified Launch Complex B1 and started construction on B2 at Shuangchengtzu, constructed the Wuchai IRBM Test Complex, and began construction of the Chingyu SSM Test Complex. [REDACTED]

A few firings of the MRBM from October 1966 through mid-1968 were probably associated with missile modifications. It appears that the Chinese had no intentions at that time of deploying the CSS-1, although it was within their capability, and were beginning to concentrate their resources on developing an IRBM. Early firings of the CSS-2 were from Shuangchengtzu during 1967 and then moved to Wuchai for longer-range testing. During this period, there was no evidence of MRBM crew training or firings. However, deteriorating border relations with the Soviets in 1968 may have caused the Chinese to re-think their missile strategy for deploying the MRBM. In August 1968, the lull was broken with the appearance of possible CSS-1 troop training exercises at the Shuangchengtzu Launch Complex A. On several occasions during the remainder of the year, support equipment was visible at the launch complex. TCS-654775-78

[REDACTED]

[REDACTED]

Since observing this activity from August 1968 to date, there have been 14 confirmed crew training firings of this CSS-1; several more firings could have occurred but were undetected. [REDACTED]

Additional evidence concerning the existence of full-scale CSS-1 troop-training program began to accumulate. New construction at the Wuwei Training Facility began in 1967 and continued through at least the end of 1969, but at a slow pace. In mid-August 1970, a fairly high level of activity at the facility and a substantial amount of missile equipment was observed. In September 1970, a training site was established 20 nautical miles south of Wuwei near Shuangta.. Although we may have detected two-MRBM sites near Kunming, we believe that the Chinese could have deployed 15 or more missiles to other undetected areas, possibly confronting the Soviet Union. [REDACTED]

Other missile systems that may have been influenced by the border incidents are the IRBM fired from Wuchai and the "Chingyu" missile from Chingyu. At least 14 to 16 IRBMs (CSS-2) were tested with at least two in 1971 believed to have been associated with training. The sighting of CSS-2 missiles and equipment in November 1970 at Wuwei suggested that the system was near IOC and that an early troop-training cycle could be expected. Two SSF facilities were recently identified near Liuchingchou which could support operational IRBMs. The CSS-2 has many advantages over the CSS-1 and it is likely to be deployed in much greater numbers with deployment starting in 1972. The CSS-2 could reach Soviet cities

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[REDACTED]

along the trans-Siberian Railroad from Vladivostok westward to Sverdlovsk, from reasonable distances behind China's border. [REDACTED]

A third system is the missile fired from Chingyu to an impact area 2,050 nautical miles away. The Chinese realize that, to threaten Moscow and western USSR, a longer-range missile than the IRBM is required. From CSS-2 technology, the Chingyu missile is believed to be a two-stage variant of the IRBM with a longer-range capability providing the Chinese with an improved strategic posture. This system with a range greater than 3,000 nautical miles would reach targets in Eastern Russia and give the Chinese a considerable degree of latitude in choosing deployment areas. The IOC for this system is not expected until 1974 or 1975. [REDACTED]

The only missile that could be a direct threat against the US is a 6,000 nautical mile range ICBM. The Chinese flight tested a vehicle having ICBM characteristics to a reduced range in September 1971. The earliest possible IOC for an ICBM based on this vehicle would be 1975, but more likely a year later. [REDACTED]

Disarmament

China has announced on numerous occasions since 1960 its position on international agreements limiting nuclear testing, nuclear proliferation, and nuclear disarmament. Since the Chinese National Peoples Congress resolution of

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[REDACTED]

21 January 1960, in which China disavowed any disarmament agreement to which it had not been a negotiating party, through the present, the Chinese position has shown little evidence of flexibility. In essence that position has been summarized in the following statements:

"China develops nuclear weapons because she is compelled to do so under imperialist nuclear threats, and she does so entirely for the purpose of defense and for breaking the imperialist nuclear monopoly and finally eliminating nuclear weapons. China's nuclear weapons are still in the experimental stage, and at present she is not yet a nuclear power, nor will she ever be a 'nuclear superpower' practicing the policies of nuclear monopoly, nuclear threats and nuclear blackmail..."

- Statement of the Government.
of the People's Republic
of China on July 30, 1971,
New China News Agency report,
Aug. 7, 1971.

"The Chinese Government's stand on the question of nuclear weapons has always been clear. Firstly, the Chinese Government has consistently stood for the complete prohibition and thorough destruction of nuclear weapons; secondly, the Chinese Government has declared on many occasions that at no time and in no circumstances will China be the first to use nuclear weapons; thirdly, the Chinese Government has consistently stood for the convening of a summit conference of all countries of the world to discuss the question of the complete prohibition and thorough destruction of nuclear weapons and, as the first step, to reach an agreement on the nonuse of nuclear weapons..."

The Chinese Government holds that in order to realize the complete prohibition and thorough destruction of nuclear weapons, the United States and the Soviet Union, which possess large quantities of nuclear weapons, should issue statements separately or jointly, to openly

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[REDACTED]

undertake the obligation not to be the first to use nuclear weapons at any time or in any circumstances, and to dismantle all nuclear bases set up on the territories of other countries and withdraw to their own countries the nuclear weapons stockpiled and nuclear armed forces stationed on those territories. Whether this is carried out or not will be a test as to whether they have the desire to realize nuclear disarmament."

- Statement of the Government of the People's Republic of China on July 30, 1971, New China News Agency report, Aug 7, 1971. (U)

During 1971, some evidence of a highly sensitive nature indicated Chinese interest in participating in multilateral arms negotiations through the Geneva-based Conference of the Committee on Disarmament (CCD) and possible future association with some previous arms control agreements. It was indicated that Chinese membership in CCD could possibly follow expansion of the Conference membership to include a number of nations sympathetic to China, revision of basic Conference working guidelines, and adoption of organizational changes designed to limit US and USSR influence. To date, however, the Chinese have made no open moves toward participating in any arms limitation negotiations. [REDACTED]

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[REDACTED]

[REDACTED]

PEOPLES REPUBLIC OF CHINA

NUCLEAR WEAPONS EMPLOYMENT
POLICY AND STRATEGY

ANNEX B: Peoples Liberation Army Training

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[REDACTED]

[REDACTED]

General

Policy governing the training of the PLA has been altered more often as the result of internal ideological conflict than by external crisis. The ideological conflict is the result of the contradiction between the policies of "salient politics" and "military first." On one side have been supporters of Chairman Mao's theory that ideology is more important than weapons. They maintain that the thoroughly indoctrinated soldier will always be more important than the weapons he employs. This soldier is China's "Spiritual atomic bomb." Opposing those who hold these views have been some professional soldiers who have argued for more military training and modern equipment. They underlined the need for "practical training" claiming that "it will not do to rely solely on ideological lectures." Each side recognizes the value of both weapons and ideology. The issue has been one of priorities. By way of illustration PLA training has been broken down into four stages. (U)

During Stage One (1949-1953) training was oriented toward the "military first" point of view. The PLA had expanded into an armed force with all services and arms. The introduction of large quantities of modern Soviet equipment forced the Chinese to pay more attention to their military training. Soviet advisors were pushing Soviet doctrine and tactics which added to the emphasis being placed

[REDACTED]

on military training. Chinese entry into the Korean War created an even greater emphasis on military training. This was caused by the shift from an unconventional guerrilla warfare strategy to one of positional warfare and from unit operations to the joint operations of services and arms. The Korean War proved to be the turning point between their old and new military training; and gave the Chinese their first actual experience in the conduct of a modern war. (U)

Stage Two, (1953-1959), saw the Chinese trying to correct the deficiencies which surfaced during the Korean War. It was a period of "modernization and regularization" in order to implement the concepts of unified command, unified equipment, and unified training. The Ministry of National Defense was created in 1954 and under it the Training Supervision Department insured the unified direction of the education and training of the various arms of the army, and provided policy guidance for the education and training of the naval and air forces. During this stage the Chinese began to move away from extensive studying of Russian doctrine and experiences and gave more consideration to their own conditions. Peng Teh-huai, the Minister of National Defense, placed military techniques foremost in training and denied that political thought was the most important factor in Chinese Communist combat effectiveness. For this stand and because of his close association with the leaders of the Soviet Union, Peng was purged in 1959 and the emphasis in

[REDACTED] [REDACTED]

[REDACTED]

training changed accordingly. Although the Taiwan crisis occurred during this stage it appears that it had no great effect on Chinese Communist training. (U)

Stage Three, (1959-1967), saw Lin Piao succeed Peng Teh-huai as Minister of National Defense. Lin instituted the "Revolutionized" military, requiring the Chinese Communist forces to develop the "glorious tradition." Emphasis was now on ideological training and required a minimum of 50% of the time be assigned daily for studying Mao's writings. The remaining hours were used for the work of the masses and part time agricultural production. This left little time for actual military training. Lo Jui-ch'ing, Chief of General Staff under Lin, felt this emphasis was detrimental to national defense. Without Lin's approval Lo shifted the emphasis back to military training. For his efforts Lo, like Peng Teh-huai, was purged on the charge of treason against the armed forces. It became obvious that stressing military training over political training was unsafe. (U)

Military training during this period emphasized basic training within the company, especially on the individual soldier, team, squad and platoon levels. After a good foundation had been laid by company-level units, the military regions could arrange joint training for a few battalions, regiments, and divisions, as required. The India/PRC conflict, Sino/Soviet split, and the Gulf of Tonkin incident all took place during this time period, however, none of them seemed to affect the training doctrine. (U)

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[REDACTED]

[REDACTED]

During Stage Five which began in 1967 and has lasted to the present, two events occurred which greatly effected the course of PLA training. The Cultural Revolution brought most large-scale military training to a standstill. What training that did take place had the following characteristics:

- a. Short training periods -- courses which usually lasted several years were now given in a few months;
- b.. Emphasis was placed on experience and not theories;
- c. Mutual teaching and learning between students;
- d. Inferior quality of students as a result of emphasis placed on family background and political outlook;
- e. Simplicity -- lack of training facilities, equipment, and instructors necessitated keeping training very basic. (U)

The 1969 border conflict with the Soviet Union awoke the Chinese to the need for effective military training. Although ideological training remains number one in priority, military training has been upgraded to prepare for combat. Combat readiness exercises are emphasized as well as bivouac training, live ammunition firing, sea-air, and land-air joint exercises, and long-distance marches. Since 1969 the largest and probably the best field and command post exercises ever conducted by the Chinese have taken place and this type of training is continuing. [REDACTED]

Ground Forces

Reporting on training activity in 1968 dealt primarily with communication exercises until midway through the year.

[REDACTED]

Initial indications of more substantive types of training were noted in late May, when a radio conversation referenced an exercise in Fukien involving armored vehicles. [REDACTED]

Armored training was referenced again later in the year as Peking Military Region (MR) voice communications between 11 and 22 November reflected a field exercise involving the 4th Armored Division. This exercise consisted of three phases: Preparation and road march, combat training, and assembly and instruction. Between 26 and 28 November, two of the armored units were involved in live-fire exercises in the vicinity of Shang An, Hopeh Province. The Peking MR activity seemed to be a normal part of the armored training cycle as reflected in COMINT. In previous years, armored training went through a yearly cycle with small-unit and individual training emphasized from January to July, and company-size exercises during the second half of the year. Larger-unit exercises normally seemed to peak in November. [REDACTED]

The year 1969 was marked by increasing COMINT references to armored training and field exercises, as well as indications of chemical-biological-nuclear (CBN) drills, amphibious training, and combined-arms exercises. Miniature range firing activity occurred at Nankou, Peking MR, and Ssuping, Shenyang MR, with basic driver training also being conducted in the latter site. Other tank training included location of a firing range at Tsinan, Tsinan MR, and driving exercises at Tang Shui, Nanching MR. Tanks deployed in a field exercise,

[REDACTED]
probably accompanied by rocket launchers, were observed
in September near Yu-kuan-chen, Peking MR. [REDACTED]

CBN training was noted in July and August, and the
first known COMINT reference to amphibious training appeared
in September. [REDACTED]

Throughout 1970, indications of training built a
picture of more sophisticated, large-unit exercises. Units
have trained in simulated nuclear- and chemical-warfare
situations and in antiairborne defense. Moreover, COMINT
and PHOTINT acquired evidence of artillery, armor, and
infantry training in a variety of combinations. Fall and
winter 1970-1971 saw some of the most extensive exercise
activity ever reflected in COMINT. Every military region
participated to some degree, and nearly every tactical unit
was at some time involved. In Kuangchou MR, the MR HQ,
Kuangtung, Kwangsi and Hunan Military Districts, 41st, 42d,
and 55th Armies along with virtually every ground force unit
in the region took part in a major exercise. Air Force
participation was noted as IL-28/BEAGLE jet light bombers
and 13th Air Division transports were noted in probable related
activity. [REDACTED]

Extensive training exercises continued through
spring and summer. Elements of two armored divisions in
Peking MR maneuvered in the same time period as an air-
ground exercise in northeast China. While neither interregional
play nor direct involvement of the Ministry of National

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[REDACTED]

Defense has been apparent, the simultaneous and widespread nature of the activity strongly suggests more sophisticated planning at the national level. It is likely that these exercises provided an evaluative vehicle for national defense measures taken in response to the 28 August 1969 directive to "defend the motherland." [REDACTED]

Overhead photographs from 30 January to 4 February 1971 provided evidence of some of the COMINT detected activity. The first photography of a major combined-arms exercise in Wuhan MR revealed elements of an unidentified tank regiment and probably the 2d Artillery Division training near Chueh-shan (Honan) on 2 February 1971. Dispersed in a training area were eight tanks, five assault guns, 18 rocket launchers and 32 field artillery pieces. On 31 January, 17 tank/assault guns and 18 antiaircraft weapons were deployed in the Huai-an area of Peking MR, and on 4 February 29 tanks and 15 assault guns were training in the Tang-shui area of Nanching MR. [REDACTED]

Active exercise areas that have been newly established near Taopuchi, Inner Mongolia, Taiyuan, Shansi, Kucheng, Tanghsien, Houlu and Changhsintien, Hopeh, provide hundreds of square miles for the training of 2,000-20,000 troops each. Located, identified training areas can support as many as a quarter million troops at a time. [REDACTED]

The preponderance of evidence since mid-1968 indicates that the tempo of PRCA training has increased considerably and that army representatives continue to participate in

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[REDACTED]

[REDACTED]

"support-the-left" and production activities. The lack of training activity detected in COMINT during the first half of 1968 most likely reflected the final months of the cultural revolution (CR), when many troops were engaged full time in maintaining order. Because the Chinese army has had a history of close involvement in civil affairs, these nonmilitary activities will no doubt continue, but will affect only an insignificant percentage of combat troops and will have negligible impact on levels of training. [REDACTED]

Many CR activities during civil disturbances, however, had training-related benefits. For example, signal, medical and transportation units were frequently able to exercise their specialities, and the army as a whole gained vital experience in projecting units over long distances. No less important, many of the production and propaganda duties of the PRCA, especially during the CR, helped to heighten the political consciousness of the "fighter." Since Chinese military doctrine places the highest priority on political and ideological indoctrination, the CR was for the entire Peoples Liberation Army a period of maximum exposure to this most important aspect of training. The army has always lived with substantial demands on resources that otherwise could have been devoted to the sharpening of combat skills, and during the CR, training restrictions were undoubtedly tightened. In the aftermath of the CR, however, military training has been on the upswing and has taken on added urgency through a campaign of "war preparations" intensified by Sino-Soviet

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[REDACTED]

tensions. [REDACTED]

The upsurge in military training since 1969 has stressed basic military skills as well as communication and field operations. Additionally, the functional orientation of army-wide training has undoubtedly had the normally expected beneficial effect on morale. The improved state of training has raised the mission effectiveness of Chinese ground units to a level unequalled in peacetime. The net result of this immense nationwide effort has been to increase readiness and enhance materially overall operational capability. [REDACTED]

Navy

To date, naval exercises conducted by the respective fleets have not demonstrated any capability to conduct offensive nuclear operations. The entire spectrum of exercises appear to emphasize coastal defense techniques against an inferior naval power. Attached appendix indicates monthly naval vessel activity from 1966-1970. It is evident that there was no Chinese naval reaction to the US naval presence in the Gulf of Tonkin (1966-1970); however, it would appear that the navy responded as did the other elements of the Peoples Liberation Army to the need for emphasis on realistic military training following the Sino-Soviet confrontation in 1969. [REDACTED]

Although concentrating on developing an expertise in coastal defense procedures, the Chinese are undoubtedly cognizant of the basic essentials of nuclear defense at sea.

[REDACTED]

It is apparent that individual ships conduct decontaminating drills as well as practicing damage control procedures. However, again this type of activity suggests an aim of survival. [REDACTED]

Air Force

Staffing of the 4th Independent Regiment was probably accomplished by transferring pilots and crews from already existing air units. Evidence points to the TU-2-equipped 10th Division, Nanching, as the source of at least 11 crews in early 1953. Pilots assigned to the 4th Independent Regiment probably had received their training at the 1st and 2d Air Schools in the Shenyang Air Districts. [REDACTED]

Following the transfer of the 10 TU-4s to China, in February 1953, pilots of the 4th Independent Regiment commenced transitional training at Shihchianchuang. This phase of training was apparently under the control of Soviet advisors and continued for some five months. No reference to Soviet training advisors was noted after September 1953. [REDACTED]

After September 1953, independent training under Chinese supervision included round-robin flights (up to 600/700 miles). These reflected an advanced stage of training involving tow-targets, GCI, and possibly limited over-water flights. Night operations were first noted in March 1954 and, by 1 June of that year, 96 such flights had occurred. [REDACTED]

The Headquarters of the 4th Independent Regiment moved to Peiching on 9 March 1954 and to Wukung the following

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[REDACTED]

February. Long-range flights involving eight to 10 aircraft followed. Flights of 1,400 miles, of six to eight hours duration, and including as many as 10 aircraft were noted in May 1954. These flights had been extended to greater ranges in 1957. Retrofit flights from Wukung to the USSR, via Shenyang Air District, were believed to have occurred in 1958.

The period April/August 1958 witnessed the extension of operational training flights of the strategic bomber force to Koerhmu and Lasa. It is possible that this unit was employed against the Tibetan guerrillas at that time. Late 1958, 1959, and early 1960 found increasing flights to Northwest China -- four to possibly Koerhmu or beyond in April 1960 and, one to Shuangchengtzu the following June.

At least five TU-4s were along the Chinese coastal area as airborne bases for shadow operations against intruding P2Vs over a period extending to August 1963. As many as 15 reactions were counted, several involving two and three TU-4s.

TU-16 flight training with the 4th Independent Regiment was first noted in July and December of 1962 when aircraft were observed in round-robin flights from Wukung. Throughout 1964 and 1965, both TU-4s and TU-16s were reflected in flights to Northwest China, activities probably associated with preparations for the series of nuclear shots that began in October 1964. TU-16s have also been employed to act as intruders in operations along the coastal areas to make more realistic the training of AC & W units in tracking and

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[REDACTED]
communications techniques. [REDACTED]

Bomber navigators are trained at the 16th Air School, Hsian, where a three-year (including one-year preparatory) course is offered. It is believed that most graduates are assigned to IL-28 units for operational training. Only a select few are assigned to the strategic unit. Communications personnel are also trained at the 16th Air School, while ground crew personnel are trained at the 8th and 9th Air Schools, (Shenyang and Changchun respectively). Weapons technicians are believed to be trained at the 8th and 10th Air Schools, the latter at Taiyuan. [REDACTED]

Unit proficiency of the 4th Independent Regiment is probably as high as can be found in the CCAF and the TU-4/ TU-16 pilots are probably considered the elite of the air force. [REDACTED]

Missile Forces

In October 1966, a training base was identified at Wuwei for personnel in surface-to-surface missile systems. However, after late 1966, missile-related activity at the facility ceased to be observed and the area showed few signs of use and through mid-1968 there was no evidence of crew training or firings. In 1968, Wuwei appeared to be getting ready for new activity with the construction of new buildings. Possibly as early as August 1968, CSS-1 troop training could have begun at the Shuangchengtzu Launch Complex. On several occasions during the remainder of the

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[REDACTED]


[REDACTED]

year, support equipment was visible at the launch complex. Since August 1968, there have been 14 confirmed crew training firings of the CSS-1 and several more firings could have occurred without being detected. [REDACTED]

A training site was identified in September 1970 20 nautical miles south of Wuwei near Shuangta. Here crews became familiar with setting the missile up and conducting a launch sequence. Actual launches are not conducted from Wuwei or the Shuangta training site. [REDACTED]

The first photographic evidence of troop training with the IRBM CSS-2 was obtained in coverage of Wuwei in November 1970. CSS-2 equipment at this training facility has been observed throughout 1971 and so far in 1972. [REDACTED]

The troops are apparently first brought to Wuwei for classroom and missile handling instructions. After completing classroom instructions, CSS-1 trainees probably move to Shuangta for field exercises. The CSS-2 crews receive missile and equipment familiarization training at Wuwei. After this phase of training is completed, CSS-1 crews move to Shuangchengtzu and CSS-2 crews to Wuchai for conducting practice launches. When these practice launches are completed, the crews apparently depart to a deployed site. [REDACTED]





PEOPLES REPUBLIC OF CHINA

NUCLEAR WEAPONS EMPLOYMENT
POLICY AND STRATEGY

ANNEX C: Command and Control

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[REDACTED]

When the Chinese leaders decided some time in the mid-1950s to embark on a program to develop and produce nuclear weapons and strategic missile delivery systems, they may have had no very clear idea of just how they would employ these systems. They may not have developed much doctrine beyond the conviction that the possession of such weapons was essential if China were to join the ranks of the leading military powers. (U)

The Chinese command and control procedures for strategic offensive weapons are still in the formative stages since these weapons are just now reaching operational status. There are indications that a separate organization has been formed under the Ministry of National Defense as part of the Strategic Operational Missile Authority. This new organization, the 2nd Artillery Corps, was first identified in 1967, and since that time very little has been learned of its composition and mission. Three SSM missile test sites have been identified in China with the Shuangchengtzu Missile Test Center (SCTMTC) acting as the main center. The other two sites are the Wuchai and Chingyu SSM complexes. Other strategic nuclear delivery systems are virtually non-existent at this time with the exception of a few TU-16 medium range (1650 nm) bombers. Appendix 1 depicts the organizational structure of the PRC strategic missile force. The command channel from the strategic operational

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[REDACTED]

missile force authority to the missile test center and then to the associated sites makes up the Special Weapons Associated Military Mainline Group. A separate communications network exists for R&D functions. To date, the Military Mainline net has passed very little radio traffic directly associated with launch activities, and it is believed that the more important traffic is routed via landline. The R&D net is exploitable, however, and does lend some insight to the missile force capability. Since the PRC nuclear force is just emerging, very little change in their command and control policy or strategy has been noted as a result of international incidents or changes in strategy of other nuclear powers. Perhaps the only exception is that shortly after the Ussuri incident, China's nuclear machinery was set in motion at a more rapid pace, however, no strategic nuclear deployments or command and control changes were noted. The Chinese have stated that their nuclear doctrine is a firm no-first-use policy. In the light of the overwhelming nuclear superiority of the US and USSR, this is probably a realistic statement of intent at this time. It is highly unlikely that Chinese doctrine provides for initiating the use of nuclear weapons against its Asian neighbors. Considering China's superior strength in conventional forces, nuclear strikes against its Asian neighbors would seem unnecessary, would entail great political costs, and would risk retaliation from one of the super-powers. Initiating a nuclear attack on the US or

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[REDACTED]

[REDACTED]
USSR would invite the elimination of China as an
industrial and military power. [REDACTED]

[REDACTED]

PEOPLES REPUBLIC OF CHINA

NUCLEAR WEAPONS EMPLOYMENT
POLICY AND STRATEGY

ANNEX D: Highlights of the Nuclear Weapons
Development Program

[REDACTED]

708 11-14-02

[REDACTED]

The Peoples Republic of China (PRC) has conducted 14 nuclear weapons development tests during the period October 1964 through March 1972. The tests, designated chronologically as CHIC 7 through 14, involved four fission devices (the first, second, fourth, and thirteenth) one probable fission device (the ninth test), and eight thermonuclear devices (the fission-TN character of CHIC 14 has not yet been determined). [REDACTED]

The first eleven PRC tests, CHIC's 1-11, appeared to be directed at the development of satisfactory low yield fission (10's of KT) and high yield thermonuclear (3 MT) weapons. In this group of tests, two basic fission device/primary designs and one basic thermonuclear design have evolved from analysis of the test debris. With the exception of the first thermonuclear test, the one basic thermonuclear design which evolved in the first eleven tests involved a two stage tuballoy burner incorporating successive improvements from prior tests. The PRC appears to have achieved its goal of developing a deliverable 3 MT thermonuclear weapon, as well as low yield (10's of KT) fission weapons. [REDACTED]

The twelfth and thirteenth nuclear tests appear to represent the start of a new phase of the PRC nuclear weapons program. CHIC-12 was a low yield (15 KT) test of a

[REDACTED]

thermonuclear device. Significantly, debris analysis from CHIC-12 indicates that the device employed a boosted plutonium primary (2 KG's Pu) which contained no more than 0.5 KG of or alloy. This may be indicative of PRC interest in developing all plutonium primaries or pure fission weapons for tactical uses. The CHIC-12 test site was heavily instrumented (likely for diagnostics) around the immediate vicinity of the ground zero. This fact and, in addition, the wide variety of materials found in the CHIC-12 debris, indicate that CHIC-12 was an experiment to explore basic thermonuclear device phenomenology. [REDACTED]

The thirteenth nuclear test was a test of a low yield (8 KT) composite fission weapon. It appears possible that CHIC-13 was delivered by an F-9 fighter, and may have been a proof test of a tactical weapon. [REDACTED]

The attached table is a recapitulation of the 14 Chinese nuclear weapons tests conducted between 16 October 1964 and 17 March 1972. (U)


The fourteenth nuclear test involved a device with a yield tentatively assessed at 170 kilotons. CHIC 14 was an airdropped device most likely delivered by a TU-16 jet medium bomber. Insufficient evidence is available at this time to permit a determination of the nuclear characteristics of this test weapon. [REDACTED]

TABLE 1

CHINESE COMMUNIST NUCLEAR TESTS

TEST	DATE	BEST YIELD ESTIMATE (KT)	DELIVERY	GOAL	REMARKS
CHIC 1	16 Oct 64	25	Tower	Fission Design	-
CHIC 2	14 May 65	35	Airdrop	Adapted CHIC 1 for Bomber	-
CHIC 3	9 May 66	250	Airdrop	TN Development	First attempt to burn TN fuel
CHIC 4	27 Oct 66	10	Missile	Missile Warhead Test	-
CHIC 5	28 Dec 66	300	Tower	TN Development	Two-stage
CHIC 6	17 Jun 67	3,300	Airdrop	TN Development	First full yield two- stage TN test
CHIC 7	24 Dec 67	15-25	Airdrop	TN Development	Two-stage failure.
CHIC 8	27 Dec 68	3,000	Airdrop	TN Development	Two-stage. First use of plutonium.
CHIC 9	22 Sep 69	20	Underground	-	Purpose unknown.
CHIC 10	29 Sep 69	3,400	Airdrop	TN Development	-
CHIC 11	11 Oct 70	3,000	Airdrop	TN Development	-
CHIC 12	18 Nov 71	15	Surface	Effects/Diagnostics	TN device.
CHIC 13	7 Jan 72	8	Airdrop (Poss F-9)	Weapons Proof	Fission device.
CHIC 14	17 Mar 72	170 (tent.)	Airdrop (Prob TU-16)		Insufficient data for evaluation


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PEOPLES REPUBLIC OF CHINA

NUCLEAR WEAPONS EMPLOYMENT
POLICY AND STRATEGY

ANNEX E: Nuclear Weapons Research and Development,
Production and Related Facilities



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[REDACTED]

Research and Development and Production Facilities

Three major nuclear weapon-related facilities have been identified in China: The Koko Nor complex in Tsinghai Province, the Wu-shiht'ala installation north of the Lop Nor test site in Sinkiang Province, and a newly discovered complex near Tzu-t'ung in Szechwan Province. Our knowledge of both the Tzu-t'ung and Wushiht'ala facilities is based entirely on overhead photography. In the case of Koko Nor, we have a considerable amount of communications intelligence and clandestine services reporting which confirms the existence of a nuclear complex in the area, but our understanding of its specific functions and capabilities is based entirely on analysis of overhead photography. [REDACTED]

The interrelationships among these three complexes are not clear. Koko Nor is the major nuclear weapons R&D center in China and, up to the present at least, it has been the major weapons fabrication center as well. It has facilities for high explosive and fissile component production, general component (cases, electrical systems) production, final weapons assembly, HE component testing, and environment testing. [REDACTED]

The identification of the Tzu-t'ung complex as a nuclear weapons fabrication center rests on the presence there of many revetted buildings and three HE test points similar to those at Koko Nor, the overall size of the installation, and the pattern of dispersal of the facilities.

[REDACTED]

It is difficult to determine the operational status of the complex at this time because most of the available photography is small scale. It did appear to be complete in early 1971 and some portions could have been available for use as early as 1969. While precise analysis of the functions of Tzu-t'ung must await higher resolution photography, it seems clear that the complex represents a major increase in China's weapons fabrication capabilities. [REDACTED]

It is possible that the Thu-t'ung complex was built to provide strategic duplication and dispersal for both R&D and production. There is some evidence the Chinese attempted to reduce the vulnerability of the complex to bombing. They have strung the buildings along narrow valleys and meticulously minimized the disturbance of the local terrain features and agricultural patterns. Koko Nor, on the other hand, is highly visible. [REDACTED]

The Wushiht'ala installation - built between 1965 and 1970 - is clearly involved in R&D, not in production, but its specific functions are not known. Most of the operational structures in the complex are for personnel use, and could house offices, laboratories, light engineering work, and classrooms. The proximity of the Wushiht'ala installation to the Lop Nor test site suggests that it may be involved in a variety of scientific and engineering activities supporting the test program. [REDACTED]

[REDACTED]

We do not know where the Chinese fabricate the nuclear components (uranium and plutonium components) for nuclear weapons. It may be done at Koko Nor, Pao Tao and/or Yumen. [REDACTED]

Two new facilities in southeast China will significantly increase the PRC capability to produce both enriched uranium and plutonium. Currently there is only one enriched uranium production facility, the Lanchou Gaseous Diffusion Plant. This facility is estimated to be producing weapons grade U-235 at a rate of from 150 to 330 Kgs per year. Modifications underway at Lanchou are expected to increase the plant's capability; however, the great increase in U-235 production will be from the new gaseous diffusion plant at Chinkouko. This facility is presently under construction and will probably be fully operational by late 1974. At that time it is estimated that Chinkouko will be producing from 750 to 2950 Kgs of U-235 per year. [REDACTED]

In addition to the original reactor at Yumen, the Chinese are also building a second, very similar, plutonium reactor and chemical separation plant near Kuangyuan. This facility could begin production in mid-1973, and should have the same plutonium production capacity as the Yumen reactor, 300-400 Kg per annum. [REDACTED]

[REDACTED]

A second possible nuclear weapons fabrication complex has also been identified near Tzu-t'ung. This is in north central China and there is a third facility at Pao-tou which also may be producing nuclear components for weapons. [REDACTED]

The reasons behind all of this expansion are various. First, they may be laying the foundations for future expansion -- the most likely explanation. Secondly, the interior location clearly shows that dispersal was and probably still is one of the prime motives. The original facilities at Lanchou, Yumen, and Koko Nor were built with Soviet help, but they are all located close to the Soviet border and are highly visible and vulnerable to air strikes. The new facilities in the Chinese heartland will require hostile bombers to make a deep penetration of Chinese air defenses. To make the Tzu-t'ung complex even less vulnerable, the Chinese have strung out the buildings along the narrow valleys, making them more difficult to find and hit. Finally the great increase in production capacity in these different locations suggests that the Chinese may be attempting to develop a redundant capability. [REDACTED]

The additional nuclear production facilities will make China the third largest nuclear power in the world. However, even with the present increase in their nuclear production capacity, the Chinese would still have to increase their stockpile capability considerably to match the number

[REDACTED]

of warheads of either the US or USSR. It is doubtful that the Chinese would attempt such a move to parity in the next ten years. Thus, until additional new nuclear facilities, beyond those which the Chinese are now completing, become evident they will not have enough nuclear warheads to alter the balance of nuclear forces between the PRC and the US and the USSR. [REDACTED]

Nuclear Weapons Control, Storage, and Logistics

How the Chinese will control, store, and handle nuclear weapons for their strategic forces is not clear. It is assumed that the authority to use strategic nuclear weapons would be reserved by the highest authority in Peking. But there is no evidence to support this assumption nor to permit the identification of any special communications network related to the command and control of nuclear weapons. [REDACTED]

The evidence of the system to be developed for storage and handling of nuclear weapons - from which it might be possible to infer something as to command and control - is still very limited. Only one stockpile site for the storage of nuclear weapons has been identified so far. This site consists of three vaults in a ridge about 12 nm from the Koko Nor weapons fabrication complex. Some of this space is probably used for nuclear weapons inspection, maintenance and retrofit. [REDACTED]

TCS [REDACTED]

[REDACTED]

The size of these storage facilities and their proximity to a major weapons production facility suggests that the Koko Nor site is intended to serve as a central stockpile. At present, any weapons shipped from this stockpile would have to travel over an all-weather natural surface road for 12 miles to Koko Nor and some 50 n.m. further by rail to Hsining before transfer to air transport would be possible. [REDACTED]

Bomb Storage

Operational storage sites for nuclear bombs at airfields have not been identified in China. The Chinese practice of placing many of their aircraft storage and maintenance facilities underground will hamper identification of nuclear weapons storage facilities. The Chinese have already utilized temporary type facilities to assemble and check out nuclear devices during their test program (at the Wushiht'ala and Shuang-ch'eng-tzu airfields), and it is not possible at this time to rule out the possibility that some nuclear weapons may already be dispersed to temporary, non-identifiable storage facilities at the TU-16 capable airfields around China. [REDACTED]

Missile Warhead Storage

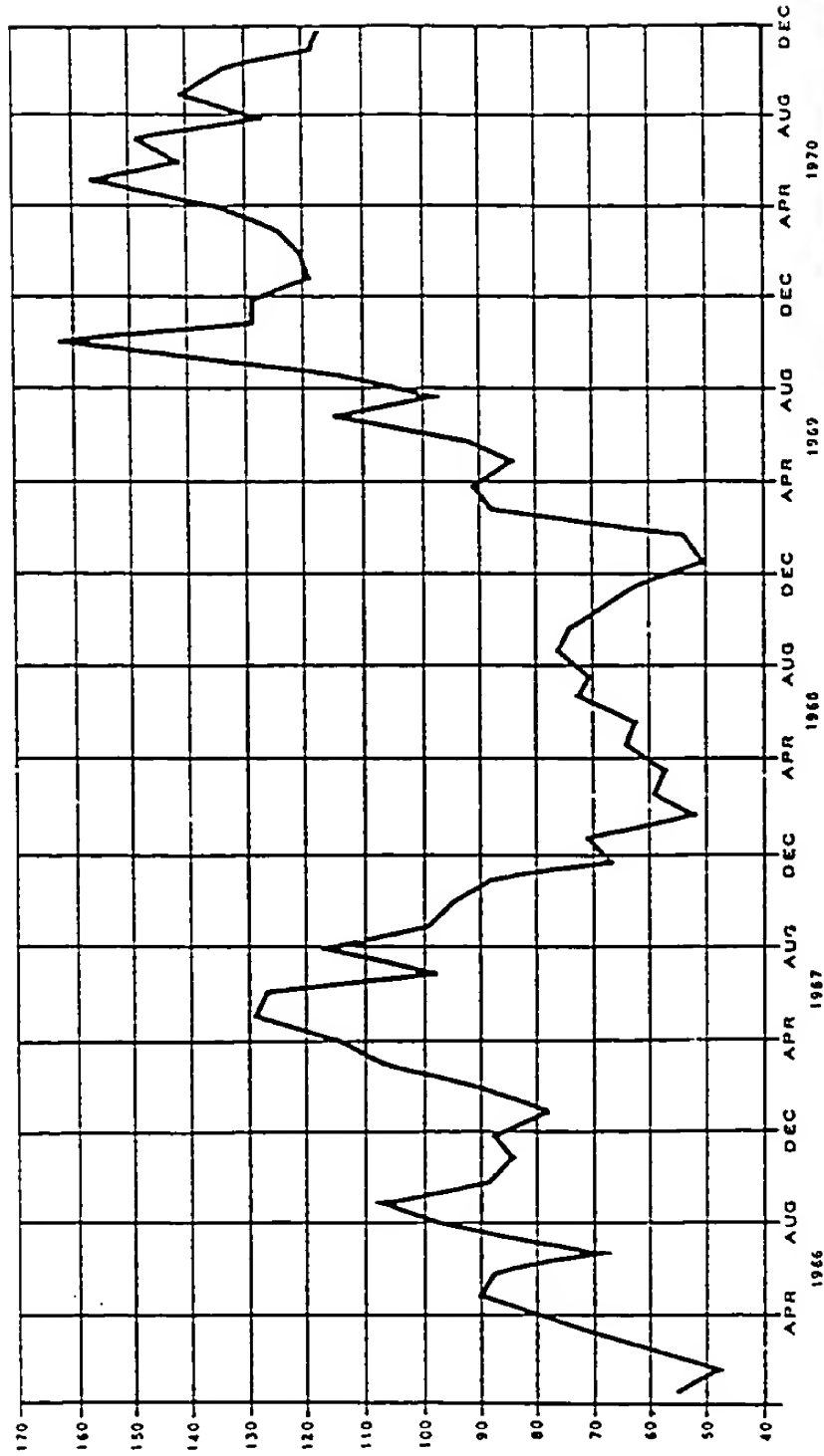
No facilities constructed specifically to store missile warheads have been identified in China. With deployment of operational missile units the Chinese probably will

[REDACTED]

provide facilities at the missile site or with the unit for check out and mating of the warhead and possibly for separate or temporary storage.

It is not yet clear whether the Chinese will keep nuclear warheads with missile units continuously or keep them in a central stockpile or stockpiles, delivering them to operational units only in times of crisis. Missiles deployed at soft sites will probably not be continuously on alert, and the Chinese could design a logistics system to rapidly deploy warheads from nearby stockpiles to these sites while the missiles were being readied. Missiles in hard sites can be kept at a higher state of readiness for extended periods, and when silo deployment begins the Chinese almost certainly will keep warheads at the sites or on the missiles. [REDACTED]

CHINESE COMMUNIST NAVAL VESSELS
MONTHLY ACTIVITY LEVELS 1966-1970
(COMPILED FROM NAVY-WIDE DAILY AVERAGES)



APPENDIX I

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TABLE 1

PEOPLES REPUBLIC OF CHINA

GROUND FORCE DISPOSITION
(selected years)

	<u>1954</u>	<u>1960</u>	<u>1963</u>	<u>1964</u>	<u>1966</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Northeast China	4	8	8	8	8	6	6	6
North China	4	6	6	6	6	6	7	8
East China	8	10	10	10	10	10	8	9
Central/South China	5	6	7	7	7	7	6	7
Northwest China	2	1	0	0	0	1	1	2
Southwest China	3	4	3	3	3	4	3	4
Unlocated/(Korea)	(11)	1	0	0	0	0	3	0
TOTALS	37	36	34	34	34	34	34	36

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TABLE 2

PEOPLES REPUBLIC OF CHINA

NAVAL FORCE
(selected years)

TYPE	1949	1950	1954	1958	1960	1963	1964	1966	1969	1970	1971	1972
PRINCIPAL SUR- FACE COMBATANTS												
DDGS	-	-	-	-	-	-	-	-	-	1	4	4
DD	-	-	-	-	4	4	4	4	4	3	1	1
DEGS	-	-	-	-	-	-	-	-	-	-	-	1
DE	-	-	-	4	4	4	4	5	9	9	9	8
SUBMARINES												
SSB	-	-	1	-	-	-	-	1*	1*	1*	1*	1*
SS	-	-	-	18	25	28	28	33	33	37	46	46
PATROL BOATS												
PF	12	12	20	21	15	15	13	16	15	15	15	15
PC	-	-	-	27	24	25	24	26	25	28	30	32
PTFG	-	-	-	-	-	-	-	1	9	14	22	35
PTG	-	-	-	-	-	-	-	1	4	4	17	32
PT	-	-	40/50	120	136	150	155	178	156	156	156	156
PTH	-	-	-	-	-	-	-	-	60	72	111	111
PGH	18	3	6	16	55	66	59	138	343	378	389	391
PGMH	-	-	-	-	-	-	-	-	3	3	3	3
PACV	-	-	-	-	-	-	-	-	-	-	1	1

* Non operational GOLF class SSU.

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TABLE 3

PEOPLES REPUBLIC OF CHINA

AIR FORCE
(selected years)

	1952	1954	1958	1960	1963	1969	1970	1972
BOMBERS								
TU-4	10	10	10	13	13	13	13	13
TU-16	--	--	--	2	2	2	13	32
IL-28	50	150	450	420	315	265	265	350
FIGHTERS								
MIG-15*	400	700	1,015	1,850	645	265	195	170
MIG-17*	--	--	--	--	1,030	1,790	1,780	1,775
MIG-19	--	--	--	--	150	750	940	1,550
MIG-21	--	--	--	--	11	25	--	120
F-9	--	--	--	--	--	--	--	80

* MIG-15, MIG-17 totals consolidated for early years.

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TABLE 4

PEOPLES REPUBLIC OF CHINA
ARMED FORCES STRENGTH
(selected years)

YEAR	GROUND FORCES	NAVY	AIR FORCE	MISSILE FORCES
1950	2,160,000	9,000	4,500	-
1954	2,720,000	34,000	60,000	-
1958	2,570,000	59,000	79,000	-
1960	2,681,000	70,000	80,000	-
1963	2,632,000	82,000	120,000	-
1964	2,311,000	95,000	150,000	-
1965	2,325,000	134,000	197,000	-
1969	2,379,000	151,000	291,000	-
1970	2,700,000	198,000	342,000	5-10,000
1971	2,814,000	214,000	363,000	10-15,000
1972	2,816,000	309,000	396,000	15-20,000

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TABLE 5

PEOPLES REPUBLIC OF CHINA
NUCLEAR WEAPON SYSTEM

Now

CSS-1 (MRBM) 10-30 launchers, range about 600 nm with 3 Mt warhead

CSS-2 (IRBM) 0-15 launchers, range about 1400 nm with 3 Mt warhead

Tu-16 medium bombers - 32, radius 1650 nm with 6600 Lb. bombs

0-25 tactical bombs for delivery by F-9 or IL-28.

Future

Limited (USSR) Range ICBM - over-3000 nm with a 3 Mt warhead - about 1974

Extended (US) Range ICBM - over 6000 nm with a 3 Mt warhead about 1975

Nuclear-powered Ballistic Missile Submarines - about 1976

PEOPLES REPUBLIC OF CHINA

MISSILE DEVELOPMENT

	<u>CSS-1</u>	<u>CSS-2</u>	<u>CHINGYU</u>	<u>ICBM</u>
First Test	1963	1966	1970	Sep 71
Firings to Date	35-40	14-16	2	1
IOC	1970	1971	1974-75	1975-76
Range (nm)	600	1,500	3,000	6,000
Re-entry Vehicle Weight (lbs)	4,500 (3 MT)	4,500 (3 MT)	4,500 (3 MT)	4,500 (3 MT)
CEP (nm)	1-2	1-2	1-2	1-3
Propellant	Cryogenic	Storable	Storable	Storable
Deployment	Soft	Soft	Hard	Hard
Configuration	Single Stage	Single Stage	Two Stage	Two Stage
Guidance	Inertial	Inertial	Inertial	Inertial

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